

# PATENT COOPERATION TREATY

## PCT


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### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>62771A</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/PEA/416
International application No. <b>PCT/US2004/003241</b>	International filing date (day/month/year) <b>04.02.2004</b>	Priority date (day/month/year) <b>05.02.2003</b>	
International Patent Classification (IPC) or national classification and IPC <b>C08F255/02, C08F8/42</b>			
Applicant <b>DOW GLOBAL TECHNOLOGIES INC. et al.</b>			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 4 sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand <b>30.08.2004</b>		Date of completion of this report <b>10.12.2004</b>	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer  <b>Wirth, M</b>  Telephone No. +49 89 2399-8595	



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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-14 as originally filed

**Claims, Numbers**

1-35 filed with telefax on 06.10.2004

**Drawings, Sheets**

1/1 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-35
	No: Claims	
Inventive step (IS)	Yes: Claims	1-35
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-35
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

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**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: EP-A-0 300 718 (MITSUI PETROCHEMICAL IND) 25 January 1989 (1989-01-25)

D2: US-A-4 529 750 (GIMPEL FRANCO) 16 July 1985 (1985-07-16)

D3: US-A-5 741 858 (CREE STEPHEN H ET AL) 21 April 1998 (1998-04-21)

2. Novelty and inventive step (Art. 33(2) and (3) PCT).

D1 discloses a process in which a polyolefin polymer is grafted with a vinyl silane in the presence of a peroxide initiator. The graft polymer is spun into fibers and then moisture cured in the presence of a catalyst (see D1, example 1).

In D1, the ratio silane/free radical is not specified. In example 1, it is 38.2.

Present claims are therefore novel (Art 33(2) PCT).

The problem to be solved by the present application was to increase the speed of fiber production while maintaining their mechanical and thermal properties (application, page 3, lines 20-27).

The examples of the application show that this problem is solved for silane/radical ratios over 45. Inventive step is acknowledged because the claimed value is remote from the value in D1 and the obtained effect is derivable from examples 1 and 3 of the application (Art 33(3) PCT).

**Re Item VII**

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.

Claim 1 lacks clarity (Art 6 PCT) because of the wording "silane material which can be

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described by the formula  $R-Si-R'''$ . It is not clear whether this feature is optional or not.  
The wording of claims 25 and 35 is clearer.

Claim 35 is the same as claim 25.